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Response to Office Action dated September 15, 2005

Amendment to the Claims:

1. (Canceled)

2. (Currently amended) A computer system for performing production scheduling, comprising:

a data organizer for:

receiving work card data into the computer system,

parsing the work card data into predetermined sets of data components according to processing requirements of a plurality of scheduling parameters,

comparing a first set of the data components with a second set of the data components to identify a dependency between the first and second sets of the data components, and

linking the first and second sets of the data components in a linking relationship to form a third set of data components;

quering an external database for historical expected non-routine work card data associated with previously completed work;

injecting the expected non-routine work card data into the third set of data components;

a data storage device coupled to an output of the data organizer, wherein the data storage device stores the ~~first and second~~ sets of the data components which are received from the data organizer;

a data processing application which performs scheduling calculations upon the ~~first and second~~ sets of the data components using the plurality of scheduling parameters; and

a communication channel respectively coupled between the data storage device and the data processing application for routing the ~~first and second~~ sets of the data components to the data processing application.

3. (Currently amended) The system of claim ~~1~~2, wherein the work card data includes a virtual template which is representative of a work card.

4. (Currently amended) The system of claim ~~1~~2, further including a graphical user interface (GUI) which displays the ~~first and second~~ sets of the data components and configures the data processing application.

5. (Currently amended) The system of claim ~~1~~2, wherein the ~~first and second~~ sets of the data components are organized using a plurality of work card identification numbers which are derived from the work card data.

6. (Currently amended) The system of claim ~~1~~2, wherein the data organizer links the first and second sets of the data components in a start-to-finish, start-to-start, finish-to-finish or finish-to-start relationship.

7. (Currently amended) The system of claim ~~1~~2, wherein the scheduling calculations further include forecasting and optimization scheduling.

8. (Original) The system of claim 7, wherein the forecasting and optimization scheduling further includes a what-if or scenario-based analysis.

9. (Original) The system of claim 7, wherein the forecasting and optimization scheduling further includes a leveling optimization process.

10. (Original) The system of claim 4, wherein the graphical user interface is operable to display a histogram representative of the budgeted man-hours of labor and a curve representative of the actual man-hours of labor.

11. (Currently amended) The system of claim ~~1~~2, wherein the data processing application is configurable to calculate a minimum threshold buffer for the ~~first and second~~ sets of the data components.

12. (Currently amended) A computer implemented method for performing production scheduling using work card data, comprising:

organizing a first set of data components according to processing requirements of a plurality of scheduling parameters, the first set of data components having been derived from the work card data;

comparing the first set of data components with a second set of data components derived from the work card data to identify a dependency between the first and second sets of data components;

copying a production parameter from a work card data template to the first set of data components;

linking the first and second sets of data components based on the dependency between the first and second sets of data components to form a third set of data components;

quering an external database for historical expected non-routine work card data associated with previously completed work;

injecting the expected non-routine work card data into the third set of data components;

storing the ~~first and second~~ sets of data components; and

performing scenario-based forecasting calculations upon the ~~first and second~~ third sets of data components based on the plurality of scheduling parameters.

13. (Original) The method of claim 12, wherein the work card data includes an identification number to match the first set of data components with the work card data template.

14. (Original) The method of claim 12, further including displaying the first set of data components on a graphical user interface.

15. (Original) The method of claim 12, wherein linking the first and second sets of data components further includes organizing the first and second sets of data components in a start-to-finish, start-to-start, finish-to-finish, or finish-to-start relationship.

16. (Original) The method of claim 12, wherein performing scenario-based forecasting calculations further includes considering available man-hours of labor.

17. (Original) The method of claim 12, wherein performing scenario-based forecasting calculations further includes comparing a baseline schedule with an available plurality of schedule configurations.

18. (Original) The system of claim 12, wherein performing scenario-based forecasting calculations further includes performing a leveling optimization calculation.

19. (Currently amended) A computer implemented method for performing production scheduling, comprising:

defining a work card data template;

receiving first operational work card data which is organized into a first data set;

comparing first work card identification data associated with the first data set with second work card identification data associated with the work card data template to identify a match between the work card data template and the first data set;

copying a production parameter from the work card data template to the first data set;

comparing the first data set with a second data set representative of second operational work card data to identify a dependency between the first and second data sets;

linking the first and second data sets together in a linking relationship to form a third data set;

changing a first descriptive parameter of the first data set to match a second descriptive parameter of the work card data template in the event that the work card data template and the first data set do not match;

quering an external database for historical expected non-routine scheduling tasks associated with previously completed work;

~~adding~~ injecting the expected non-routine scheduling tasks into the ~~first~~ third data set;

sorting the ~~first~~ third data set into an available plurality of locations based on ~~the~~ an operational status of the ~~first~~ third data set; and

performing a scheduling function on the ~~first~~ third data set based upon an available plurality of scheduling parameters, wherein the scheduling function includes an optional, user defined, scenario-based forecasting tool.

20. (Original) The method of claim 19, further including displaying the first and second data sets on a graphical user interface for analysis by a user.

21. (Original) The method of claim 19, wherein linking the first and second data sets together in a linking relationship further includes linking the first and second data sets in a start-to-finish, start-to-start, finish-to-finish or finish-to-start relationship.

22. (Currently amended) The method of claim 19, wherein performing a scheduling function on the ~~first~~ third data set

further includes performing a leveling optimization function on the ~~first~~ third data set.

23. (Currently amended) The method of claim 19, wherein performing a scheduling function on the ~~first~~ third data set further includes calculating a minimum threshold buffer for the ~~first~~ third data set.